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ABSTRACT

The purpose of this study was to assess optimal experience, also known as "flow" and "quality of experience" in a private, coeducational resident camp program for children. Flow refers to those times in work and leisure when people report feelings of enjoyment, concentration, and deep involvement. Flow theory predicts that an experience will be most positive when a person perceives that the environment contains high enough opportunities for action (challenges) which are matched with the person's capacities. Campers were asked to complete an Experience Sampling Form (ESF) to indicate their involvement, attitudes, and feelings during randomly selected times during two camp sessions in 1991. A total of 910 experiences were sampled from 47 male and female campers aged 11-12. Results of the study indicate that 16% of camper's time was spent in flow (high challenge, high skills) as compared with 29% in anxiety (high challenge, low skills), 43% in boredom (low challenge, high skills), and 13% in apathy (low challenge, low skills). Experiences that were more likely to provide an opportunity for flow were completing activities such as service projects, outdoor recreation pursuits, active games, and creative opportunities. This study suggests that, using the flow theory, camp activities should have a focus on the relationship between various challenge and skill levels. (LP)

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OPTIMAL EXPERIENCE AMONG CAMPERS IN A RESIDENT CAMP SETTING

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Optimal Experience among Campers in a Resident Camp Setting

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Abstract: The purpose of this exploratory study was to assess optimal experience, also known as "flow" and "quality of experience," in a resident camp setting. Campers from a private coeducational children's camp in the southeastern United States were asked to record descriptions of their involvement, attitudes, and feelings during randomly selected times during two camp sessions in 1991. The research questions addressed were: How do experiences associated with a quality of experience and flow occur in the resident camp setting? How frequently do they occur? What implications does an understanding of flow have for providing better camp experiences? Based on this exploratory study which consisted of data from 910 experiences from 47 campers, several conclusions were drawn.

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Organized camping experiences have long been valued for the physical, emotional, social, educational, recreational, and spiritual outcomes. While difficult to document, a number of researchers recently have examined the benefits and outcomes of camp experiences and have determined their value (e.g., Chenery, 1991; Cowin, 1989; Stone, 1986). In addition to the character development dimensions of camp, it is also useful to examine the aspects of enjoyment that may have a significant effect on how a camp experience is perceived. The significance of enjoyment is not trivial and may, in fact, be vital to the survival of society (Csikszentmihalyi, 1981). The dimensions of enjoyment and the contribution that optimal experience can make to human development cannot be overlooked (Wells, 1988). When one stops to analyze what really happens in a camp experience, it may be that challenge, skills, and enjoyment are really the basis for most aspects of camp activities.

The purpose of this exploratory study was to assess optimal experience, also known as "flow" and "quality of experience," in a resident camp setting. Campers from a private coeducational children's camp in the southeastern United States were asked to record descriptions of their involvement, attitudes, and feelings during randomly selected times during two camp sessions in 1991. The overriding research questions addressed were: How do experiences associated with a quality of experience and flow occur in the resident camp setting? How frequently do they occur? What implications does an understanding of flow have for providing better camp experiences?

Review of the Literature

The basis of optimal experience has two dimensions: flow theory and psychological states. The framework for this study was flow theory, the description of those times in work and leisure when people report feelings of enjoyment, concentration, and deep involvement (Csikszentmihalyi, 1990). Flow theory predicts that an experience will be most positive when a person perceives that the environment contains high enough

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opportunities for action (or challenges) which are matched with the person's own capacities to act (or skills). Flow relates to the theoretical model based on a ratio of the quantity of a subjectively experienced challenge to the quantity of subjectively felt skills. When the two are in balance and of a high enough quantity, flow is experienced. When both challenges and skills are high, the person is not only enjoying the moment, but is also stretching his or her capabilities with the likelihood of learning new skills and increasing self-esteem and personal complexity (Csikszentmihalyi & LeFevre, 1989).

The second way that the quality of experience was measured was through more traditional psychological variables such as happiness, creativity, strength, satisfaction, and motivation. These factors were classified as affect or hedonic valence factors and potency or arousal factors. The two dimensions of flow and quality of experience must be examined together to give a fuller picture of the camp experience for children.

Flow may be found in climbing mountains or in the "invisible mountains" around us (Mitchell, 1988, p. 59). The universal precondition of flow is that a person should perceive that there is something to do and that s/he is capable of doing it (Csikszentmihalyi, 1988a). According to Csikszentmihalyi & Csikszentmihalyi (1988a), in everyday life the opportunities for action are seldom evenly matched with our abilities to act. Opportunities for intense concentration seldom occur in daily life which is a fault of the "human condition." Flow helps to explain why people enjoy their work and their leisure and it also helps explain why, in some circumstances, people are bored and frustrated (Csikszentmihalyi, 1988a).

The dimensions of flow relate to challenge and skills. High quantities of skills coupled with high challenge results in a flow experience provided that other dimensions of the quality of experience are also present. Too much challenge without appropriate skills will result in anxiety. While a certain amount of anxiety may be good for individuals, too much can be detrimental. Too little challenge with high amounts of ability will result in boredom, especially if too little activity is associated with the experience. An activity or event that results in both low challenge and low skill use results in apathy. The use of a four dimension model has been most useful in describing the aspects of flow and nonflow as found in anxiety, boredom, and apathy (Csikszentmihalyi & Csikszentmihalyi 1988b, p. 261).

The study of "flow" has been developing for over 15 years. The questions concerning flow evolved from questions about intrinsic motivation and Maslow's "peak experiences." Early studies used subjective interviews and time diaries. The term autotelic experiences was initially used which indicated that experiences were rewarding in and of themselves. The Experience Sampling Method (ESM), also known as "beeper" studies, was developed to provide a randomization of sampling whereby individuals completed an Experience Sampling Form (ESF). Early data analysis suggested that "flow" occurred when challenges and skills were equal (Csikszentmihalyi, 1974). More recent studies have suggested that challenge and ability need to be above a certain level for flow to occur. While an 8-point model has been developed (Massimini & Carli, 1988) to illustrate the dimensions of flow, the four-point model shown in Figure 1 seems to offer a less complicated portrayal of the phenomena.

A number of research projects have examined flow over the past years. People in different ethnic cultures (e.g., Carli, Fave, & Massimini, 1988; Han, 1988; Sato, 1988) as well as people in work and leisure have been examined (e.g., Csikszentmihalyi & LeFevre, 1989; Fave & Massimini, 1988; Larson, 1988; LeFevre, 1988; Macbeth, 1988). In addition, optimal experience and flow have been measured in relation to other aspects of

everyday life (Massimini & Carli, 1988; Rathunde, 1988; Wells, 1988). According to Csikszentmihalyi (1988b) several conclusions can be offered as a result of years of applying this concept: (a) flow is a state of positive psychic functioning that can occur in all people; (b) flow is generally an optimal state; (c) large individual differences exist in the quantity and intensity of flow experienced in different people; and (d) flow is important in the dynamics of cultural evolution because people will seek to replicate it or to find it in the activities/events of their lives.

Figure 1. The Flow Model.

Flow data collected on adolescents has provided some interesting insights into their lives. Larson (1988) suggested that adolescents experience higher highs and lower lows during their daily lives and their emotions appear to shift more quickly than those of adults. Flow allows young people to experience "natural highs." In addition, the research has suggested that flow occurs in all ages and in both work and leisure activities (Csikszentmihalyi & LeFevre, 1989).

Methods and Setting

The procedures used in this study were a modification of the experience sampling technique (Csikszentmihalyi & Larson, 1987). The data were obtained by asking campers to complete experience sampling forms (ESF) at random times during the waking hours of a "normal" camp session. The times for the random samples were signaled by a camp bell. Five signals were given each day with approximately every other day sampled to lessen the disruption of the camp schedule. When campers heard the signal, they were asked to complete the ESF at their earliest convenience. A total of 910 experiences were sampled from 47 male and female campers aged 11-12 years.

Since this study was exploratory, only one camp was used. The camp, located in the mountains of the southeastern part of the United States, is a private independent camp that has been in existence since 1935. It served 200 campers ranging in age from 5-12 in each two-week session. A total of 100 staff are employed each session. The activities offered at the camp include water activities (canoeing, tubing, swimming, rafting), horseback riding, active games, creative arts (crafts, drama, pottery), community service projects, farm activities (animals, gardening, and milling) and outdoor activities (campcraft, ecology, rock climbing, challenge courses.). The campers lived in cabins of eight children and two staff. Campers chose a portion of their activities through participation in a daily sign-up, and were assigned a daily activity to ensure exposure to different program areas.

The sample consisted of 88% female and 12% males. While approximately the same number of each gender began the study, females seemed more likely to remain with the study during its duration. Over 70% of the responses were recorded in the first session in early July 1991. Over 50% of the responses were received during the first three days of the camp session with 25% during the middle of camp and 25% during the last three days of camp. About 43% of the responses occurred during or before lunch and 43% in the afternoon. During the evening, 13% of the responses from the total day were received.

The ESF took about two minutes to complete. It included such items as what kind of activity was engaged in at the moment of the signal, with whom, rationale for the activity, challenge and skills needed (to construct the idea of flow) and the psychological quality of the experience.

Current activity was determined by asking the camper what she/he was doing at the time of the bell. Each response was coded into 54 categories which were eventually grouped into 12 major categories. The campers were also asked to indicate if they were involved in other activities and with whom they were involved. Further, they were asked to indicate the rationale for the activity which included whether they had to do it, they wanted to do it, or they had nothing else to do.

The respondents were asked to indicate the challenge of the activity and the amount of skills on a four-point scale ranging from very high to very low. To minimize individual response bias, each camper's responses were transformed into individual *z* scores. The *z* scores were then used to determine in which of the four categories each of the activities was based on flow theory. The four categories were:

1. Flow context: Both challenge and skills are greater than the camper's average.
2. Anxiety context: Challenges are greater than the camper's average, and skills are less than her or his average.
3. Boredom context: Challenges are less than the camper's average, and skills are greater than her or his average.
4. Apathy context: Both challenges and skills are below the respondent's average.

Quality of experience was measured by 10 additional items on the ESF that asked about the camper's psychological states. These six scales were measured as affect which included items related to happiness, friendliness, and sociability; potency which included items related to alertness, excitement, and activeness; and one item each on motivation, creativity, relaxation, and freedom. All of these dimensions were used to measure the psychological quality of experience.

Results

Because the camp experiences were randomly sampled throughout the day, the percentage of time spent in each activity category could be calculated. The results indicated that campers spent their time in the following activities: eating (16%), outdoor nature based activities (13%), social interaction (11%), creative (arts and crafts) activities (10%), personal grooming/maintenance (9%), resting (9%), waiting (8%), and group planning (7%), service projects (for camp and community) (6%), quiet and active games (each 5%), and all camp activities (2%). Over half (56%) of the campers' time was spent with a structured small group, either a cabin group, service project group, or an activity group. Almost half of the campers said they were doing activities that they wanted to do while a third said they had to do the activities.

On a 5-point Likert scale with 1=not at all and 5=very much, campers had the following mean scores: affect (M=3.98, SD =.73), potency (M=3.50, SD= .95), relaxation (M=3.56, SD=1.05), freedom (M=3.70, SD=.92), creativity (M=3.57, SD=.95), and motivation (M=3.65, SD=.92). Overall the psychological states were quite high for the campers with a consistent standard deviation.

Each of the campers was asked to indicate on a 4-point scale whether the primary activity they were doing was: 1="not challenging at all," 2="challenging a little,"3="challenging," 4="very challenging." In the same manner they were asked to indicate their ability for the activity: 1="not good at all," 2="not good at it." 3="I'm good at it," or 4= "I'm very good at it." Only about 27% of the camp activities were "challenging" to the campers but they indicated they were "good at" 90% of the activities. By using z scores to control for response bias, individual means were calculated for each individual. Flow or nonflow was then calculated for each activity based on whether an activity resulted in challenge and skills above or below the individual's mean. It is important to keep in mind, as Csikszentmihalyi and LeFevre (1989) indicated that these proportions are intended simply to indicate the direction of a trend, not to be taken literally. How much time a camper spent in flow depends on how strict a definition of flow one wishes to use. Intense and complex flow experiences only occur a few times in an individual's lifetime; however, using our present definition, every time a person scored above his or her personal mean level of challenge and skill at the same time, he or she was assumed to be in some level of flow.

Thus, using a liberal interpretation of the concept of flow, it was found that 16% of camper's time was spent in flow (high challenge, high skills) as compared with 29% in anxiety (high challenge, low skills), 43% in boredom (low challenge, high skills), and 13% in apathy (low challenge, low skills). Table 1 shows the percentage of time a particular activity was likely to result in flow. As can be seen, flow experiences were most likely to be found in service projects, outdoor recreation, active games, and creative activities.

Several other aspects were found related to experiencing flow by the campers. Chi-square statistics indicated that a statistically significant difference between flow and nonflow was associated with gender of campers (X2=11.4, 1*df*, P=.00023), with females much more likely to experience flow. Other analyses including the session at camp, time of day, involvement in other activities at the time of the primary activity, and why an activity was undertaken showed no statistically significant differences between flow and nonflow.

Quality of experience was also measured by affect, potency, motivation, creativity, relaxation, and freedom. As was consistent with other research, flow was directly related to four of these psychological measures. (See Table 2) As was consistent with other research, an analysis of variance statistic revealed that flow was statistically significant and positively related to affect (i.e., those campers having flow experiences were happier, more sociable, and felt they were in a friendly environment more than those in nonflow), potency (i.e., those campers in flow were more active, involved, and alert than those experiencing nonflow), creativity, and motivation.

Table 1

Time Spent in Flow and Nonflow Experiences Based on Camper Activities

Activity	Time Spent			
	Flow	Anxiety	Boredom	Apathy
Active Games	21%	64%	10%	5%
Outdoor Rec Activities	24%	59%	13%	5%
Service Projects	26%	56%	9%	9%
Creative Activities	19%	58%	9%	14%
Resting	8%	-	74%	18%
Social Interaction	16%	9%	62%	13%
Eating	13%	2%	79%	7%
Quiet Games/Activities	18%	23%	40%	20%
Group Planning/Preparation	11%	40%	36%	13%
Personal Grooming/ Maint.	15%	25%	48%	11%
Waiting/Sign-up	10%	16%	49%	27%
All Camp Activities	5%	-	59%	36%

N=47 Responses=910

Some differences existed on several dimensions pertaining to psychological variables. No differences were found between boys and girls on affect, freedom, creativity, and motivation. Boys were, however, more active (potency) and relaxed in psychological states than were the girls at camp. A difference among campers was reflected in the two camp sessions that were sampled with psychological variables higher in the second session, although flow was consistent between both sessions. Campers had higher potency scores (were more active, excited, alert) in the afternoon but none of the other psychological factors had a relationship to time of day. Campers generally had the lowest affect, potency, freedom, creativity, and motivation scores when they were alone, and the highest when they were with one, two, or more people (but not in a structured group). Campers had the highest psychological scores when they felt they wanted to do an activity as opposed to when they "had to" or "had nothing else to do."

Table 2

An Analysis of Variance of the Effects of Flow on Campers' Psychological Quality of Experience

Quality of Experience	Nonflow X	Flow X	Flow F Value	Stat Sig.
Affect (happy, sociable, friendly)	3.91	4.20	18.18	.000*
Potency (alert, active, excited)	3.42	3.84	23.43	.000*
Relaxation	3.50	3.64	14.78	.155
Freedom	3.65	3.81	3.71	.054
Creativity	3.50	3.82	12.85	.000*
Motivation	3.61	3.88	9.61	.002*

N=47 Responses=910

Psychological scores of enjoyment were also related to the activities in which campers participated. The highest affect scores were found in active games, outdoor recreation activities, eating, service projects, social interaction, and waiting. The highest potency scores were related to active games and outdoor recreation as would be expected given the definition of potency and the nature of these activities. Campers felt the most freedom when they were involved in active games, many of which were done during their "free" time. Creativity was most apparent in creative arts times and in active games. Campers indicated they were most motivated when involved with active games, outdoor recreation activities, creative arts, and social interaction.

Discussion

Based on this exploratory study, several conclusions can be drawn. Camp is a place where children can experience flow. The descriptive data suggest that the challenge for a number of the activities was not high, thus resulting in more boredom and apathy than anxiety or flow, but overall the campers seemed quite happy, active, motivated, relaxed, free, and creative. Experiences that were more likely to provide an opportunity for flow were "doing" oriented activities such as service projects, outdoor recreation pursuits, active games, and creative opportunities.

As has been suggested in other studies using flow as the theoretical framework, flow can happen anywhere, at any time, provided that the person's capacities and the opportunities for action in the environment are matched (Csikszentmihalyi & Csikszentmihalyi, 1988a). Virtually all aspects of camp ranging from very active undertakings such as whitewater rafting to walking/talking with cabinmates had the potential for flow.

If camp directors believe that optimal experience, as measured by flow and other psychological factors, is an important outcome for campers, then it may be useful to examine how a camp setting may be organized to facilitate the potential for flow experiences. Mitchell (1988) suggested that rationalization has prevented many of us from finding flow in everyday activities because we don't have words for our experiences, we separate it from functions of life, and we

become disenchanted with life (i.e., we feel alone, spiritually lost). Therefore, program directors and staff at camp may want to pay particular attention to how to provide challenging opportunities and yet provide enough skill development for campers to be successful. They may also want to help campers think about the experiences they are having and see how microflow (i.e., those brief moments of feeling one's abilities match the challenges of the moment) can be just as important as major "flow" events. Activities must have clear goals and provide quick and unambiguous feedback-- one cannot experience flow when one does not know what to do or does not get feedback. Staff may need to pay particular attention to making sure skills are just right and the challenges or demands are above average. The goal of camps is not to have campers in "flow" 100% of the time. It is periods of nonflow which make flow experiences most meaningful. Perhaps particular programs should be targeted as "flow-potential" with the notion that flow may occur on the microlevel in daily activities as well as in moments of "peak experiences." Perhaps as Logan (1988) suggested, addressing flow requires that one breaks up one's day as well as fills one's day. A variety of activity with a focus on various challenge and skill levels may be a framework for developing camp activities using flow as the model.

Additional ideas for creating flow include encouraging campers to have positive thinking, to be flexible, to show a sense of humor, to see and encourage others to experience flow, to seek new learning experiences, and to take time to relax. Perhaps in order to experience flow, we really need to have spaces when it doesn't occur. Further, to remain in flow, one must increase the complexity of the activity by developing new skills and taking on new challenges (Csikszentmihalyi, 1988a). The concept of "spiraling complexity" (Csikszentmihalyi, 1988a, p. 30) may be a focus that camp programmers can address particularly as the camp session goes on.

Another dimension that may be worth pursuing in the future is the way that a flow experience at camp may extend beyond the momentary experience (Fave & Massimini, 1988). One of the goals of camps is that campers will seek positive group living experiences in the outdoors again and again (not only in camp but elsewhere). The uniqueness of the camp experience may be the exhilaration, energy and fulfillment that may not be commonly experienced elsewhere in people's lives. (Csikszentmihalyi, 1988a) Another challenge relates to how one's sense of challenge and skill be taken home and used in other situations in life. How can campers be encouraged to seek flow in their undertakings outside of camp?

As has been noted, this study was an initial quantitative exploration into the dimensions of flow and optimal experience in the camp setting. Obviously many more questions remain to be addressed if we are to understand the camp experience using this framework of optimal experience. For example, how does flow relate to the quality of leadership and the preparation given for an activity? How does it relate to the enthusiasm of the leaders? How does the organization of the camp impact upon the flow experience in terms of the structure of the day? Based on previous research on other populations, it appears that the experience that campers have with flow in camp is no different than the experience that others have had with flow in other settings. The very nature of camp makes it a place where flow experiences have a great deal of potential. The challenge is in maximizing the experiences to allow for the opportunities for flow to occur.

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